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Abstract

MICROSCOPIC NEUTRON FLUX DISTRIBUTION IN ELEMENTARY CELLS OF CRITICAL ASSEMBLIES OF NPY - PROJECT

Collective work

from

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There exist three critical assemblies in Norway, Poland and Yugoslavia.

According to the NPY Cooperative Program a series of neutron flux distribution measurements and calculations has been done for each of these assemblies.

This paper discusses the measurements done on 3% enriched uranium rods in the D_2O moderated Norwegian "NORA" reactor, on 20% enriched 3-concentric tubular fuel elements in the graphite water moderated Polish reactor "ANNA" and on 2% enriched tubular type fuel elements in the D_2O moderated Yugoslavian RB reactor.

Experimental results are analyzed using 3 independent reactor cell calculation methods, "K.7 - Thermos" code devoloped at IFA, Kjeller and analytical thermalization methods developed in Poland and Yugoslavia.